



Figure 1A

SEQ ID NO:						
6	mouse_E3αI	MASEMEPEVQ	AI D-RSLL	EC SAEI AGRWL	QATDLNREVV QHLAHCVPKI 49	
4	human_E3αI	MASELEPEVQ	AI D-RSLL	EC SAEI AGKWL	QATDLTREVV QHLAHYVPKI 49	
15	mouse_E3αI	MADEEMDGAE	RMDVSP	PEPPL APQRPASWMD	QQVDFYTAFL HHLAQLVPEI 50	
2	human_E3αI	MADEEAGGTE	RMEISAE	LPQ TPQRLASWMD	QQVDFYTAFL HHLAQLVPEI 50	
	Consensus	MA.E.....	..D....L..	.....A..W	Q..D.....HLA..VP.I 50	
6	mouse_E3αI	YCRGPNPFPQ	KEDTLAQHI	L LGPMEW	ICA EDPALGFPKL EQANKPSHLC 99	
4	human_E3αI	YCRGPNPFPQ	KEDMLAQHVL	L GPMEW	LCG EDPAFGFPKL EQANKPSHLC 99	
15	mouse_E3αI	YFAEMDPDLE	KQEESVQMSI	LTPLEW	LFGE EDPDI CLEKL KHSG-AFQLC 99	
2	human_E3αI	YFAEMDPDLE	KQEESVQMSI	FTPLEW	LFGE EDPDI CLEKL KHSG-AFQLC 99	
	Consensus	Y.....P...	K.....Q...	L.P.EW	L.G EDP.....KL .....LC 100	
6	mouse_E3αII	GRVFKVGEPT	YSCRDCAVDP	TCVLCME	CFL GSI HRDHRYR MTTSGGGGFC 149	
4	human_E3αII	GRVFKVGEPT	YSCRDCAVDP	TCVLCME	CFL GSI HRDHRYR MTTSGGGGFC 149	
15	mouse_E3αI	GKVFKSGETT	YSCRDCAI DP	TCVLCMD	CFQ SSVHKNHRYK MHTSTGGGFC 149	
2	human_E3αI	GRVFKSGETT	YSCRDCAI DP	TCVLCMD	CFQ DSVHKNHRYK MHTSTGGGFC 149	
	Consensus	GRVFK. GE. T	YSCRDCA. DP	TCVLCM	CF. .S. H.. HRY. M TS. GGGFC 150	
6	mouse_E3αII	DCGDTEAWKE	GPYCQKH	KL S SEVVEE	EDP LVHLS	EDVI A RTYNI FAI MF 199
4	human_E3αII	DCGDTEAWKE	GPYCQKH	ELN TSEI	EEEEEDP LVHLS	EDVI A RTYNI FAI TF 199
15	mouse_E3αI	DCGDTEAWKT	GPFCVD	HEPG RAGTT	KESLH -CPLNEEVI A QARRI FPSVI 198	
2	human_E3αI	DCGDTEAWKT	GPFCVN	HEPG RAGTI	KENSR -CPLNEEVI V QARKI FPSVI 198	
	Consensus	DCGDTEAWK.	GP. C.. HE..	.....E...	...L. E. VI A ....I F.... 200	

Figure 1B

6	mouse_E3αII	RYAVDILTWE	KESELPEDLE	VAEKSDTYYC	<b>M</b> FNDEVHTY	EQVI YTLQKA	249
4	human_E3αII	RYAVEILTWE	KESELPADLE	MVEKSDTYYC	<b>M</b> FNDEVHTY	EQVI YTLQKA	249
15	mouse_E3αI	KYI VEMTIWE	EEKELPPELQ	I REKNERYYC	VLFNDEHHSY	DHVI YSLQRA	248
2	human_E3αI	KYV VEMTIWE	EEKELPPELQ	I REKNERYYC	VLFNDEHHSY	DHVI YSLQRA	248
	Consensus	. Y. VE...WE	. E. ELP...L.	.. EK...YYC	. LFNDE. H. Y	. . VI Y. LQ. A	250
6	mouse_E3αII	VNCTQKEAIG	FATTVDRDGR	RPVRYGDFQY	CDQAKTVI VR	NTSRQTK- PL	298
4	human_E3αII	VNCTQKEAIG	FATTVDRDGR	RSVRYGDFQY	CEQAKSVI VR	NTSRQTK- PL	298
15	mouse_E3αI	LDCELAE AQL	HTTAI DKEGR	RAVKAGVYAT	CQEAKEDI KS	HSENV SQHPL	298
2	human_E3αI	LDCELAE AQL	HTTAI DKEGR	RAVKAGAYAA	CQEAKEDI KS	HSENV SQHPL	298
	Consensus	.. C...EA..	.. T.. D..GR	R. V..G....	C...AK..I...	..... PL	300
6	mouse_E3αII	KVQVMHSSVA	AHQNFGLKAL	SWLGSVI GYS	DGLRRI LCQV	GLQEGPDGEN	348
4	human_E3αII	KVQVMHSSI V	AHQNFGLKLL	SWLGS I GYS	DGLRRI LCQV	GLQEGPDGEN	348
15	mouse_E3αI	HVEVLH SVVM	AHQKFALRLG	SWWNKI MYS	SDFRQI FCQA	CLVEE PGSEN	348
2	human_E3αI	HVEVLH SEI M	AHQKFALRLG	SWWNKI MYS	SDFRQI FCQA	CLREE PDSEN	348
	Consensus	. V. V. HS...	AHQ. F. L. L.	SW...I...YS	...R. I. CQ.	. L. E. PD. EN	350

Figure 1C

6	mouse_E3αII	SSLVDRLMLN	DSKLWKGARS	VYHQLFMSSL	LMDLKYKKLF	ALRFAKNYRQ	398
4	human_E3αII	SSLVDRLMLS	DSKLWKGARS	VYHQLFMSSL	LMDLKYKKLF	AVRFAKNYQQ	398
15	mouse_E3αI	PCLISRLMLW	DAKLYKGARK	ILHELIFSSF	FMEMEYKKLF	AMEFVKYYKQ	398
2	human_E3αI	PCLISRLMLW	DAKLYKGARK	ILHELIFSSF	FMEMEYKKLF	AMEFVKYYKQ	398
	Consensus	..L..RLML.	D.KL.KGAR.	..H.L..SS.	.M..YKKLF	A..F.K.Y.Q	400
6	mouse_E3αII	LQRDFMEDDH	ERAVSVTALS	VQFFTAPTAL	RMLLTEENLM	TVIIKAFMDH	448
4	human_E3αII	LQRDFMEDDH	ERAVSVTALS	VQFFTAPTAL	RMLI TEENLM	SIIIKTFMDH	448
15	mouse_E3αI	LQKEYISDDH	ERSISITALS	VQMLTVPTLA	RHLIEEQNVI	SVITETLLEV	448
2	human_E3αI	LQKEYISDDH	DRSISITALS	VQMFTVPTLA	RHLIEEQNVI	SVITETLLEV	448
	Consensus	LQ.....DDH	ER...S.TALS	VQ.FT.PTLA	R.LI.E.N..	SVI...T...	450

Figure 1D

SEQ ID NO:					
6	mouse_E3αII	L KHRDAQGRF	QFERYTALQA	FKFRRVQSLI	LDLKYVLI SK PTEWDEL RQ 498
4	human_E3αII	L RHRDAQGRF	QFERYTALQA	FKFRRVQSLI	LDLKYVLI SK PTEWDEL RQ 498
15	mouse_E3αI	LPEYLD RNN-	KFN-FQGY SQ	DKLGRVYAVI	CDLKYI LI SK PVI WTERLRA 496
2	human_E3αI	LPEYLD RNN-	KFN-FQGY SQ	DKLGRVYAVI	CDLKYI LI SK PTI WTERLRM 496
	Consensus	L.....	.F.....	.K..RV...I	.DLKY. LI SK PT. W..LR. 500
6	mouse_E3αII	KFLQG FDAFL	ELLKCMQGM D	PI TRQVGQHI	EMEPEWEAAF TLQMKLTHVI 548
4	human_E3αII	KFLEG FDAFL	ELLKCMQGM D	PI TRQVGQHI	EMEPEWEAAF TLQMKLTHVI 548
15	mouse_E3αI	QFLEGFRSFL	KI LTCMQGME	EI RRQVGQHI	EVDPDWEAAI AI QMQLKNI L 546
2	human_E3αI	QFLEGFRSFL	KI LTCMQGME	EI RRQVGQHI	EVDPDWEAAI AI QMQLKNI L 546
	Consensus	.FLEGF..FL	..L. CMQGM	.I. RQVGQHI	E..P. WEAA. ..QM L.... 550
6	mouse_E3αII	SMVQDWCALD	EKVLIEAYKK	CLAVLTQCHG	GFTDGEQPIT LSI CGHSVET 598
4	human_E3αII	SMVQDWCASD	EKVLIEAYKK	CLAVLMQCHG	GYTDGEQPIT LSI CGHSVET 598
15	mouse_E3αI	LMFQEWACD	EDLLLVAYKE	CHKAVMRCST	NFMSTKTV- VQLCGHSLET 595
2	human_E3αI	LMFQEWACD	EELLVAYKE	CHKAVMRCST	SFISSTKTV- VQSCGHSLET 595
	Consensus	.M Q. WCA. D	E..L...AYK.	C....M.C..	.F.....CGHS.ET 600

Figure 1E

6	mouse_E3αII	I RYCVSQEKV SI HLPISRLL AGLHVLLSKS EVAYKFPELL PLSELSPPML	648
4	human_E3αII	I YCVSQEKV SI HLPVSRLL AGLHVLLSKS EVAYKFPELL PLSELSPPML	648
15	mouse_E3αI	KSYKVSEDLV SI HLPISRTL AGLHVRLSRL GAISRLHEFV PFDSFQVEVL	645
2	human_E3αI	KSYRVSEDLV SI HLPISRTL AGLHVRLSRL GAVSRLHEFV SFEDFQVEVL	645
	Consensus	..Y.VS...V SI HLP.SR.L AGLHV.LS...E...P.....L	650
6	mouse_E3αII	I EHPLRCLVL CAQVHAGMMR RNGFSLVNQI YYYHNVKCR EMDKDI VML	698
4	human_E3αII	I EHPLRCLVL CAQVHAGMMR RNGFSLVNQI YYYHNVKCR EMDKDVML	698
15	mouse_E3αI	VEYPLRCLVL VAQVVAEMMR RNGLSLISQV FYYQDVKCRE EMDKDI I ML	695
2	human_E3αI	VEYPLRCLVL VAQVVAEMMR RNGLSLISQV FYYQDVKCRE EMDKDI I ML	695
	Consensus	.E.PLRCLVL .AQV.A.MMR RNG.SL..Q..YY..VKCR. EM DKDI . ML	700
6	mouse_E3αII	QTGVSMMDPN HFLM MLSRF ELYQLFSTPD YGKRFSSEVT HKDVVQQNNT	748
4	human_E3αII	QTGVSMMDPN HFLM MLSRF ELYQIFSTPD YGKRFSSEIT HKDVVQQNNT	748
15	mouse_E3αI	QI GASIMDPN KFLLLVLQRY EL-----TDA FNKTI ST--K QQDLI KQYNT	738
2	human_E3αI	QI GASLMDPN KFLLLVLQRY EL-----AEA FNKTI ST--K QQDLI KQYNT	738
	Consensus	Q.G.S.MDPN .FL...L.R. EL.....T...K..S.....D...Q.NT	750

Figure 1F

6	mouse_E3αII	LI EEM L Y L I I	ML VGER F NPG	VGQVAATDEI	KREI I HQLSI	KPMAHSELVK	798
4	human_E3αII	LI EEM L Y L I I	ML VGER F SPG	VGQVNATDEI	KREI I HQLSI	KPMAHSELVK	798
15	mouse_E3αI	LI EEM L QVLI	YI VGER YVPG	VGNVTREEVI	MREI I THLLCI	EPMPHSAI AR	788
2	human_E3αI	LI EEM L QVLI	YI VGER YVPG	VGNVTKEEVT	MREI I HL LCI	EPMPHSAI AK	788
	Consensus	LI EEM L . . . I	. . VGER . . PG	VG. V . . . . . I	. REI I H. L. I .	PM HS . . . K	800
6	mouse_E3αII	SLPE DENKET	GMESVI ESVA	HFKKPGLTGR	GMVELKPECA	KEFNLYFYHF	848
4	human_E3αII	SLPE DENKET	GMESVI EAVA	HFKKPGLTGR	GMVELKPECA	KEFNLYFYHF	848
15	mouse_E3αI	NLPENENNET	GLENVI NKVA	TFKKPGVSGH	GVYELKDESL	KDFNMVYFHY	838
2	human_E3αI	NLPENENNET	GLENVI NKVA	TFKKPGVSGH	GVYELKDESL	KDFNMVYFHY	838
	Consensus	. LPE. EN. ET	G. E. VI . . VA	. FKKPG. . G.	G. YELK. E. .	K. FN. YFYH.	850
6	mouse_E3αII	SRAEQSKAEE	AQRKLKRENK	EDTALPPPAL	PPFCPLFASL	VNI LQCDVM	898
4	human_E3αII	SRAEQSKAEE	AQRKLKQNR	EDTALPPPVL	PPFCPLFASL	VNI LQSDVM	898
15	mouse_E3αI	SKTQHSKA EH	MQKRRKQEN	KDEALPPPPP	PEFCPAFSKV	VNLLSCDVM	888
2	human_E3αI	SKTQHSKA EH	MQKRRKQEN	KDEALPPPPP	PEFCPAFSKV	INLLNCDI MM	888
	Consensus	S . . . . SKAE. .	Q. K . . . Q. .	. D. ALPPP. .	P. FCP. F . .	VN. L. CDVM	900

# Figure 1G

SEQ ID NO:					
6	mouse_E3αII	YI MGTI LQWA	VEHGS AWSE	SMLQRVLHLI	GMALQEEKHH LENA VEGHVQ 948
4	human_E3αII	CI MGTI LQWA	VEHNGYAWSE	SMLQRVLHLI	GMALQEEKQH LENVTEEHV 948
15	mouse_E3αI	YI LRTI FERA	VDTESNLWTE	GMLQMAFHIL	ALGLLEEKQQ LQKAPEEEV- 937
2	human_E3αI	YI LRTV FERA	IDTDSNLWTE	GMLQMAFHIL	ALGLLEEKQQ LQKAPEEEV- 937
	Consensus	YI..TI...A	V.....WE	.MLQ...H..	...L.EEKQ. L..A.EE.V. 950
6	mouse_E3αII	TFTFTQKI SK	PGDAPHNSPS	ILAMLET LQN	APSL EAHKDM I RWLLKMFNA 998
4	human_E3αII	TFTFTQKI SK	PGEAPKNPS	ILAMLET LQN	APYLEVHKDM I RWLKTFFNA 998
15	mouse_E3αI	AQDFYHKASR	LGSSAMNAQN	I QMLLERLKG	IPQLEGQKDM ITW LQMFDT 987
2	human_E3αI	TFDFYHKASR	LGSSAMNIQM	L---LEKLKG	IPQLEGQKDM ITW LQMFDT 984
	Consensus	TF.F..K.S.	.G....N...	I...LE.L..	.P.LE..KDM I.WL.MF... 1000
6	mouse_E3αII	IKKI RE--CS	SSSPVAE AEG	TI MEESSRDK	DKAERKRKAE I ARLRREKIM 1046
4	human_E3αI	VKKMRE--SS	PTSPVAETEG	TI MEESSRDK	DKAERKRKAE I ARLRREKIM 1046
15	mouse_E3αI	VKRLREKSCL	VVATTSGLEC	IKSEI THDK	EKAERKRKAE AARLHRQKI M 1037
2	human_E3αI	VKRLREKSCL	IVATTSGSES	IKNDEI THDK	EKAERKRKAE AARLHRQKI M 1034
	Consensus	VK..RE..C.	.....E.	...EE...DK	.KAERKRKAE .ARL.R.KIM 1050

Figure 1H

6	mouse_E3αII	AQMSEMQRHF	I DENKELFQQ	TLELDTSASA	TL--DSSPPV	SDAALTALGP	1094
4	human_E3αII	AQMSEMQRHF	I DENKELFQQ	TLELDASTA	VL--DHSPVA	SDMTLTALGP	1094
15	mouse_E3αI	AQMSALQKNF	I ETHKLMYDN	TSEVTGKEDS	IMEESTSAV	SEASRIALGP	1087
2	human_E3αI	AQMSALQKNF	I ETHKLMYDN	TSEMPGKEDS	IMEESTPAV	SDYSRIALGP	1084
	Consensus	AQMS...Q..F	I...K.....	T.E.....	.....S.P.V	SD....ALGP	1100
6	mouse_E3αII	AQTQVPEPRQ	FVTCILCQEE	QEVTVGSRAM	VLAAFVQRST	VLSKDRTKI	1144
4	human_E3αII	TQTQVPEQRQ	FVTCILCQEE	QEVKVESRAM	VLAAFVQRST	VLSKNRSKFI	1144
15	mouse_E3αI	KRGPAVTEKE	VLTCILCQEE	QEVKLENNAM	VLSACVQKST	ALTQHRGKPV	1137
2	human_E3α	KRGPSVTEKE	VLTCILCQEE	QEVKIENNAM	VLSACVQKST	ALTQHRGKPI	1134
	Consensus	.....	..TCILCQEE	QEVK.E..AM	VL.A.VQ.ST	.L...R.K.I	1150
6	mouse_E3αII	AD-PEKYDPL	FMPDLSCGT	HTGSCGHVMH	AHCWQRYFDS	VQAKEQRRQQ	1193
4	human_E3αII	QD-PEKYDPL	FMPDLSCGT	HTSSCGHI MH	AHCWQRYFDS	VQAKEQRRQQ	1193
15	mouse_E3αI	DHLGETLDPL	FMDPDLAHGT	YTGSCGHVMH	AVCWQKYFEA	VQ---LSSQQ	1184
2	human_E3αI	ELSGEALDPL	FMDPDLAYGT	YTGSCGHVMH	AVCWQKYFEA	VQ---LSSQQ	1181
	Consensus	....E...DPL	FM PDL..GT	.TGSCGHVMH	A.CWQ.YF..	VQ.....QQ	1200



Figure 1I

6	mouse_E3αII	RLRLHTSYDV	ENGFLCPLC	ECLCNTVIPL	L-LPPRSILS	RRLN-FSDQP	1241
4	human_E3αII	RLRLHTSYDV	ENGFLCPLC	ECLCNTVIPL	L-LPPRNIFN	NRLN-FSDQP	1241
15	mouse_E3αI	RIHVDL-FDL	ESGEYLCPLC	KSLCNTVIPI	IPLQPQKINS	ENAEALAQLL	1233
2	human_E3αI	RIHVDL-FDL	ESGEYLCPLC	KSLCNTVIPI	IPLQPQKINS	ENADALAQLL	1230
	Consensus	R.....D.	E.GE.LCPLC	..L.NTVIP.	..L.P..I.S	.....	1250
6	mouse_E3αII	DLAQWTRAVT	QQIKVVQMLR	RKHNAA-DTS	SSEDTEAMNI	IPIPEGFRPD	1290
4	human_E3αII	NLTQMRTIS	QQIKALQFLR	KEESTP-NNA	STKNSENVDE	LQLPEGFRPD	1290
15	mouse_E3αI	TLARWQTVL	ARISGYNIKH	AKGEAPAVPV	LFNQGMGDST	FEFHSILSFG	1283
2	human_E3αI	TLARWQTVL	ARISGYNI RH	AKGENP-IPI	FFNQGMGDST	LEFHSILSFG	1279
	Consensus	.LA.W.TV.	..I.....	.K...P-..	.....	.....	1300
6	mouse_E3αII	FYPRNPYSDS	IKEMLTTFGT	AAYKVGLKVH	PNEGDRVPPI	LCWGTCAVTI	1340
4	human_E3αII	FRPKI PYSES	IKEMLTTFGT	ATYKVGLKVH	PNEEDPRVPI	MCWGSCAYTI	1340
15	mouse_E3αI	VQSSVKYSNS	IKEMVILFAT	TIYRI GLKVP	PDELDPRVPM	MTWSTCAFTI	1333
2	human_E3αI	VESSI KYSNS	IKEMVILFAT	TIYRI GLKVP	PDERDPRVPM	LTWSTCAFTI	1329
	Consensus	.....YS.S	IKEM..F.T	..Y..GLKV.	P.E.DPRVP.	..W.TCA.TI	1350

SEQ ID NO:							
6	mouse_E3αII	QSIERILSDE	EKPVFGPLPC	RLDDCLRSLT	RFAAAHWTV A	LLP VVQG HFC	1390
4	human_E3αII	QSIERILSDE	DKPLFGPLPC	RLDDCLRSLT	RFAAAHWTV A	SVS VVQG HFC	1390
15	mouse_E3αI	QA IENLLGDE	GK PLFGALQN	RQHSG LKALM	QF AVAQ RATC	PQVLIHKHLA	1383
2	human_E3αI	QA IENLLGDE	GK PLFGALQN	RQHNG LKALM	QF AVAQ RITC	PQVLIQKH LV	1379
Consensus		Q . IE . . L . DE	. K PLFG . L . .	R . . . . L . . L .	. FA . A . . . . .	. . . . . Q . H . .	1400
6	mouse_E3αII	KLFASLVPSD	SYEDLPCILD	IDMFHLLVGL	VLA FPALQCQ	D --- FSGSSL	1437
4	human_E3αII	KLFASLVPN D	SHEEL PCILD	IDMFHLLVGL	VLA FPALQCQ	D --- FSGISL	1437
15	mouse_E3αI	RLLSVILP NL	QSENT PGLLS	VDLFHVLVGA	VLA FPSLYWD	DTV DLQP SPL	1433
2	human_E3αI	RLLSVLP NI	KSEDTPCLLS	IDLFHVLVGA	VLA FPSLYWD	DPVDLQPSSV	1429
Consensus		. L . . . . . PN .	. . E . . PC . L .	ID . FH . LVG .	VLA FP . L . . . .	D . . . . . SSL	1450
6	mouse_E3αII	ATG -- DLHIF	HLVTMAHIVQ	ILLTSCTEEN	--- GMDQENP	TGE EE LA IL S	1482
4	human_E3αII	GTG -- DLHIF	HLVTMAHI IQ	ILLTSCTEEN	--- GMDQENP	PCEEESA VL A	1482
15	mouse_E3αI	SSSYNHLYLF	HLITMAHMLQ	ILLTTDT DLS	PGP PLAEGEE	DSEEARCASA	1483
2	human_E3αI	SSSYNHLYLF	HLITMAHMLQ	ILLTVD TGL -	--- PLAQVQE	DSEEAHSA SS	1475
Consensus		. . . . . L . . F	HL . TMAH . . Q	ILLT . . T . . .	--- . . . . Q . . . .	. . EE . . . . .	1500

	Sequence	Accession
6 mouse_E3αII	QSIERILSDE EKPVFGPLPC RLDDCLRSLT RFAAAHWTVA LLPVVGHFH	1390
4 human_E3αII	QSIERILSDE DKPLFGPLPC RLDDCLRSLT RFAAAHWTVA SVSVVQGHFC	1390
15 mouse_E3αI	QAIENLLGDE GKPLFGALQN RQHSGLKALM QFAVAQRATC PQVLIHKHLA	1383
2 human_E3αI	QAIENLLGDE GKPLFGALQN RQHNGLKALM QFAVAQRITC PQVLIQKHLV	1379
Consensus	Q . I E . . L . D E . K P L F G . L . . R . . . . L . . . . F A . A . . . . . Q . H . .	1400

Accession	Sequence	Length
6 mouse_E3αII	ATG--DLHIF	1482
4 human_E3αII	GTG--DLHIF	1482
15 mouse_E3αI	SSSYNHLYLF	1483
2 human_E3αI	SSSYNHLYLF	1475
Consensus	.....L..F	1500
	HLVTMAHIVQ	TGEEELAILS
	HLVTMAHIIQ	PCEEEASVLA
	HLITMAHMLQ	DSEEARCASA
	HLITMAHMLQ	DSEEAHSASS
	HL.TMAH..Q	..EE.....
	ILLTSCSTEEN	---GMDQENP
	ILLTSCSTEEN	---GMDQENP
	ILLTTDTDLS	PGPPLAEGEE
	ILLTVDTGL-	---PLAQVQE
	ILLT...T...	---...Q...

Figure 1K

6 mouse_E3αII	LHKTLLHQYTG	SALKEAPSGW	HLWRSVRAAI	MPFLKCSAL	FHYLNGVPAP	1532
4 human_E3αII	LYKTLHQYTG	SALKEIPSGW	HLWRSVRAGI	MPFLKCSALF	FHYLNGVPSP	1532
15 mouse_E3αI	FFVEVSQHTD	GLTGCGAPGW	YLWLSLRNGI	TPYLRCALL	FHYLLGVAPP	1533
2 human_E3αI	FFAEISQYTS	GSIGCDIPGW	YLWVSLKNGI	TPYLRCALL	FHYLLGVTPP	1525
Consensus	.....QYT.	.....GW	.LW.S.R.GI	.P.L.C.AL	FHYL.GV..P	1550
6 mouse_E3αII	PDLQV-SGTS	HFEHLCNYLS	LPTNLIHLFQ	ENSDIMNSLI	ESWCQNSEVK	1581
4 human_E3αII	PDIQV-PGTS	HFEHLCSYLS	LPNNLICLFQ	ENSEIMNSLI	ESWCRNSEVK	1581
15 mouse_E3αI	EELFANSAEG	EFSALCSYLS	LPTNLFLLFQ	EYWDTIRPLL	QRWCGDPALL	1583
2 human_E3αI	EELHTNSAEG	EYSALCSYLS	LPTNLFLLFQ	EYWDTVRPLL	QRWCADPALL	1575
Consensus	..L....S....	.F..LCSYLS	LPTNL..LFQ	E..D....L.	..WC.....	1600
6 mouse_E3αII	RYLNGERGAI	SYPRGANKLI	DLPEDYSSLI	NQASNFSCPK	SGGDKSRAPT	1631
4 human_E3αII	RYLEGERDAI	RYPRESNKLI	NLPEDYSSLI	NQASNFSCPK	SGGDKSRAPT	1631
15 mouse_E3αI	KSLKQKSAVV	RYPRKRNSLI	ELPEDYSCLL	NQASHFRCPR	SADDERKHPV	1633
2 human_E3αI	NCLKQKNTVV	RYPRKRNSLI	ELPDDYSCLL	NQASHFRCPR	SADDERKHPV	1625
Consensus	..L.....	RYPR...N.LI	.LPEDYS.L.	NQAS.F.CP.	S...D....P.	1650

**Figure 1L**

6	mouse_E3αII	LCLVCGSLLC	SQSYCCQAEI	EGEDVGACTA	HTYSCGSGAG	I FLRVRECQV	1681
4	human_E3αII	LCLVCGSLLC	SQSYCCQTEL	EGEDVGACTA	HTYSCGSGVG	I FLRVRECQV	1681
15	mouse_E3αI	LCLFCGAILC	SQNI CCQEIV	NGEEVGACVF	HALHCGAGVC	I FLKI RECRV	1683
2	human_E3αI	LCLFCGAILC	SQNI CCQEIV	NGEEVGACIF	HALHCGAGVC	I FLKI RECRV	1675
	Consensus	LCL.CG..LC	SQ..CCQ...	.GE.VGAC..	H...CG.GV.	I FL...REC.V	1700
6	mouse_E3αII	LFLAGKTKGC	FYSPPYLDDY	GETDQGLRRG	NPLHLCQERF	RKI QKLWQQH	1731
4	human_E3αII	LFLAGKTKGC	FYSPPYLDDY	GETDQGLRRG	NPLHLCCKERF	KKI QKLWHQH	1731
15	mouse_E3αI	VLVEGKARGC	AYPAPYLDEY	GETDPGLKRG	NPLHLSRERY	RKLHLVWQQH	1733
2	human_E3αI	VLVEGKARGC	AYPAPYLDEY	GETDPGLKRG	NPLHLSRERY	RKLHLVWQQH	1725
	Consensus	....GK...GC	.Y..PYLD.Y	GETD.GL.RG	NPLHL...ER.	RK...WQQH	1750
6	mouse_E3αII	SITEEIGHAQ	EANQTLVGID	WQHL			1755
4	human_E3αII	SVTEEIGHAQ	EANQTLVGID	WQHL			1755
15	mouse_E3αI	CIIEEARSQ	ETNQMLFGFN	WQLL			1757
2	human_E3αI	CIIEEARSQ	ETNQMLFGFN	WQLL			1749
	Consensus	.I.EEI...Q	E.NQ.L.G..	WQ.L			1774